

Amendments to the Specification

Please replace the current abstract with the following replacement abstract:

Methods of increasing the throughput of recovery boilers equipped with at least three ~~two~~ levels of injection of air are presented, the methods improving the thermal efficiency of the boiler with oxygen enrichment of the air in at least one level of the combustion air system, at or the secondary air level. One embodiment is a method to retrofit black liquor recovery boilers having a two level air injection system with a third level of oxidant injection below or at the same level as the original secondary air, and oxygen enrichment applied to at least the original secondary air stream and said third level. A preferred method is for the third level to be placed at or close to the same level as black liquor injector ports. In one method, a black liquor recovery boiler has three levels of air injection, and oxygen enrichment is applied to at least the secondary and the tertiary air injection levels. In another method, a black liquor recovery boiler has four levels of air injection, and oxygen enrichment is applied to one or more of the tertiary or quaternary air injection levels. In another method, a black liquor boiler has three levels of air injection, with oxygen enrichment applied to at least two air injection levels. After combustion, the oxygen concentration in the resultant flue gas is sensed. The oxygen injection is then adjusted in order to maintain the sensed oxygen concentration at the previously selected oxygen set point.

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